

**Comments on the November 19, 2004 Draft
Lower Duwamish Waterway, Slip 4 Early Action Area,
Technical Memorandum on Proposed Boundary of the Removal Action**

General Comment:

There is a mix of different notations for concentration units throughout the text, tables, and figures of this document. Suggest adopting the most commonly used conventions of "mg/kg dw", "µg/kg dw", and "mg/kg OC" throughout the text, tables, and figures. Note that there are no commas between "kg" and "dw" or between "kg" and "OC". There are also no such units as "mg/kg OC-dry" (see Table 2).

Specific Comments:

Page iv, List of Acronyms:

Add "dw" and define as "dry weight".

Delete HAET from list of acronyms; there is no reason to discuss HAET in this document.

Add "2LAET" and define as "second lowest apparent effects threshold".

Add "MHW" and define as "mean high water".

Page 3, second paragraph, third sentence:

It is not true that "biological testing is required to confirm adverse effects." It would be more correct to state that "an exceedance of the SQS numerical criteria indicates the potential for minor adverse biological effects or toxicity, although biological testing may be conducted to confirm that such minor adverse effects actually occur."

Page 3, second paragraph, third sentence:

It is a common misconception that the CSL and the MCUL are the same thing, because there is a table in the Sediment Management Standards that provides the same values for both the CSL and MCUL. It is true that the MCUL are defined as the maximum chemical concentrations or level of biological effects that will be allowed to remain at a cleanup site within 10 years after cleanup is completed. However, the MCUL can be established at levels below the tabled values; the tabled values merely represent the maximum values for the MCUL, and are numerically equivalent to the CSL. There is really no legitimate reason to discuss the MCUL in this document.

This paragraph should also discuss when comparisons with the LAET or 2LAET are appropriate. For those organic chemicals whose SQS and CSL values are expressed on an organic carbon normalized basis, it may be more appropriate to compare their dry weight concentrations to the lowest apparent effects threshold (LAET) (functionally equivalent to the SQS) or the second lowest apparent effects threshold (2LAET) (functionally equivalent to the CSL) when TOC concentrations are very low (<0.2 percent).

Page 8, third paragraph, fifth sentence:

Data for Station SL4-11 were reported by Landau (1990).

Figure 2, Legend:

Use the more common symbol " \leq " (meaning "less than or equal to") in the definition of the green circle (instead of " \leq ").

Insert space between "kg" and "OC" in the definition of the yellow circle.

Insert "Navigation" before "Channel".

Insert "(130 $\mu\text{g/kg dw}$)" after "LAET" and "(1,000 $\mu\text{g/kg dw}$)" after "2LAET".

Figure 3, Legend:

Suggest moving definitions of qualifiers J, M, and FR from figure title box to legend box. If more room is needed, the area shown in the map could be shifted north to make room for a larger legend box.

Use the more common symbol " \leq " (meaning "less than or equal to") in the definitions of the green circle and green triangle (instead of " \leq ").

Insert "Navigation" before "Channel".

Figure 4, Legend:

Suggest moving definition of FR from figure title box to legend box.

Insert "Navigation" before "Channel".

Replace "Detected Chemical Exceedances in Non-PCB Surface Samples" with "Exceedances of SQS and CSL for Detected Chemicals other than PCBs in Surface Sediment Samples".

Replace "Non-PCB Surface Sample Analysis" with "Chemicals Analyzed in Surface Sediment Samples".

Figure 4, Title:

Change title to "Exceedances of SQS or CSL for Chemicals other than PCBs in Surface Sediment Samples Collected in 2004".

Figure 4, Label for Station SG16:

Add "dw" after "420 $\mu\text{g/kg}$ ".

Correct spelling of "Bis(2-ethylhexyl)phthalate".

Figure 4, Labels for both Stations SG06 and SG06FR:

Correct spelling of "Bis(2-ethylhexyl)phthalate".

Change parentheses after "Bis(2-ethylhexyl)phthalate" to "(CSL=78 mg/kg OC)".

Figure 5, Legend:

Suggest moving definitions of U, J, and M from figure title box to legend box.

Insert "Navigation" before "Channel".

Use the more common symbol " \leq " (meaning "less than or equal to") in the definition of the green box (instead of " \leq ").

The color of the "x" indicating "2004 Intertidal Composite Subsample" is different in the legend than on the map.

Replace "Historic" with "Historical" in two instances in the legend (and also in the label "Historic Core Data" on the map).

Figure 6, Legend:

Insert "Navigation" before "Channel".

Table 1:

Delete "/MCUL" from last column heading.

Table 2:

Replace "HAET" with "2LAET" in the last column heading and in footnote a. The CSL is functionally equivalent to the 2LAET, not the HAET.

Table 3, third page:

Delete extra units at top of concentration column.

Table 4:

Replace "HAET" with "2LAET" in the last column heading and in footnote a. Insert space between "11" and " $\mu\text{g/kg}$ " in footnote b.